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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/936,444	09/11/2001	Klaus Huenlich	112740-262	4127

29177 7590 03/23/2006

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EXAMINER	
MERED, HABTE	

ART UNIT	PAPER NUMBER
2616	

DATE MAILED: 03/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/936,444	HUENLICH ET AL	
	Examiner	Art Unit	
	Habte Mered	2662	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *1/9/2006*.

2a)☒ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *11-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *11-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *11 September 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. The amendment filed on 9 January 2006 has been entered and fully considered.

2. Claims 11-20 are pending.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. **Claims 11-14, 16, 19, and 20** are rejected under 35 U.S.C. 103(a) as being unpatentable over Song (US 6, 289, 018) in view of Madonna US (5, 737, 320).

Song discloses an ATM switching system that has a subscriber and trunk input/output module where the user data and control data is split and then multiplexed for output purposes.

5. Regarding **claim 11**, Song discloses a method for data transmission between communications devices via a packet-oriented communications network, a method comprising the steps of: providing a time-slot oriented data format **(Column 2, Line 54)**, formed from a periodic sequence of channel-specific information segments, for data transmission between the communications devices, the data format having information segments for transmitting signaling information **(Figure 5, element 124)**, information segments for transmitting user data information **(Figure 5, element 123)**, transmitting the information segments intended for transmitting the signaling information in first data packets which are intended for data transmission via the packet oriented

communications network**(Figure 5, element 124. Song clearly shows how to separate control information and send it in a packet. The control information shown is a D channel packet however Song has demonstrated the ability to separate any control info and send it in a packet. See Column 7, Lines 25-40)**; and transmitting the information segments intended for transmitting the user data information in second information segments which are intended for transmission via the packet oriented communications network **(Figure 5, element 123)**.

Song while teaching how a control channel and data channel can be separated in a time slot based switching system, he fails to teach two different types of control segments (signaling and data format specific info) can exist in a packet.

Madonna teaches a means of transferring circuit switched data and packet switched data in a high bandwidth telecommunication system.

Madonna discloses two different types of control segments can exist in a packet. **(Clearly in Figure 1E a packet is shown with two different control segments labeled as "control" and "status & control". The "status and control" indicates a data format specific info as illustrated in Column 7, Lines 50-55 and Column 8, Lines 29-31.)**

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Song's' method by using a packet which has different types of control segments. The motivation of using such a packet is that it makes it easier for a processor to identify and process a given packet as it is easier to pick a specific control segment rather than going through an augmented huge control field.

6. Regarding **claim 12**, Song discloses a method for data transmission between communications devices via a packet-oriented communications network, wherein the information segments intended for transmitting the data format specific information segments and the information segments intended for transmitting the signaling information are transmitted jointly in the first data packets. **(Since the D channel in Song is a combination of the signaling and data specific format information Song easily accomplishes this in Figure 5, element 124.)**

9. Regarding **claim 13**, Song discloses a method for data transmission between communications devices via a packet-oriented communications network, the method further comprising the step of subdividing the first data packets into at least two packet elements, the second information segments being transmitted in the first packet element, and the information segments intended for transmitting the signaling information being transmitted in the second packet element. **(See Figure 10. Song teaches that the B channel packet destined for the same packet may be included in the same ATM cell. See Column 10, Lines 17-25)**

10. Regarding **claim 14**, Song teaches a method for data transmission between communications devices via a packet-oriented communications network, wherein each of the first and second packet elements have a cell header with a length identification, the length identification defining a number of data items transmitted in the respective packet element. **(See Figure 10, Table 1 and Column 10, Lines 42-55)**

11. Regarding **claim 16**, Song teaches a method for data transmission between communications devices via a packet-oriented communications network, wherein the data transmission via the packet-oriented communications network takes place on the basis of the ATM data format. **(See Figures 4, 9 and 10)**

12. Regarding **claim 19**, Song teaches a method for data transmission between communications devices via a packet-oriented communications network, wherein the information segments intended for transmitting the signaling information are transmitted via an existing tie line in the packet-oriented communications network. **(In Figures 5,6, and 7 the D-Channel mux and B-channel mux form a V-interface with the B+D interface.)**

13. Regarding **claim 20**, Song discloses a method for data transmission between communications devices via a packet-oriented communications network, wherein the information segments intended for transmitting the signaling information are transmitted via a packet-oriented communications network using a connection, which is set up, specifically for this data transmission, between the communications devices. **(Column 2, Lines 64-67. Song refers to these connections as special highways and sub-highways.)**

15. **Claim 15** is rejected under 35 U.S.C. 103(a) as being unpatentable over Song (US 6, 289, 018) in view of Geiger et al (G. Geiger et al, "Integrated Circuits for ISDN-status and future", April 1989, IEEE)

Song teaches all aspects of the claimed invention as set forth in the rejection of claim 11 but fails to teach a method for data transmission between communications

devices via a packet-oriented communications network, wherein the timeslot-oriented data format is the standardized IOM-2 data format.

Geiger discloses the IOM-2 ISDN architecture.

Geiger discloses a method for data transmission between communications devices via a packet-oriented communications network, wherein the timeslot-oriented data format is the standardized IOM-2 data format. **(Page 192, Section 4.1 and Figure 4)**.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Song's apparatus to incorporate IOM-2 data format, the motivation being to have a device that is interoperable with various ISDN industry standards.

16. **Claims 17 and 18** are rejected under 35 U.S.C. 103(a) as being unpatentable over Song (US 6, 289, 018) in view of Duault et al (US 6, 108, 336).

17. Regarding **claim 17**, Song teaches all aspects of the claimed invention as set forth in the rejection of claim 16 but fails to teach a method for data transmission between communications devices via a packet-oriented communications network, wherein the information segments intended for transmitting the signaling information are transmitted via the packet-oriented communications network in data packets designed in accordance with the fifth ATM adaptation layer agreement.

Duault teaches how to use AAL-5 to perform AAL-1 and Aal-2 functions.

Duault discloses a method for data transmission between communications devices via a packet-oriented communications network, wherein the information

segments intended for transmitting the signaling information are transmitted via the packet-oriented communications network in data packets designed in accordance with the fifth ATM adaptation layer agreement. **(Duault shows that AAL-5 can be used in a network that uses ATM and ISDN interface. See also Column 14 Lines 10-20)**

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Song's apparatus to incorporate AAL-5 protocol, the motivation is that AAL-5 is the best adaptation used in ATM because it is easy to implement and is easily available as stated in Duault's Column 5, Lines 36-45.

18. Regarding **claim 18**, Song teaches all aspects of the claimed invention as set forth in the rejection of claim 17 but fails to teach a method for data transmission between communications devices via a packet-oriented communications network, wherein the information segments intended for transmitting the user data information are transmitted via the packet-oriented communications network in data packets designed in accordance with the first ATM adaptation layer agreement.

Duault discloses a method for data transmission between communications devices via a packet-oriented communications network, wherein the information segments intended for transmitting the user data information are transmitted via the packet-oriented communications network in data packets designed in accordance with the first ATM adaptation layer agreement. **(Duault shows AAL-1 packet format and further shows it can be used to carry user data in Figure 4 and Column 9, Line 20-40)**

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Song's apparatus to incorporate AAL-1 protocol, the motivation is that using AAL-1 is advantageous because it is preferred by PBX vendors and is considered as a tool kit with many optional functions including for multiplexing 64 kbits/ channels as stated in Duault's Column 4, Lines 41-55.

Response to Arguments

19. Applicant's arguments filed on 9 January 2006 have been fully considered but they are not persuasive.

20. In the Remarks, on page 6, Applicant argues that Song does not teach data-format specific information segments and further these segments being sent in a third packet. Examiner respectfully disagrees with Applicant's conclusion. First, as originally claimed, claim 11 did not specifically indicate the data-format specific information being sent in any package. Now that the Applicant has amended claim 11 and claimed this specific limitation, a new rejection has been formulated to address this limitation and is based on by combining what Song and Madonna teach. Song clearly has established on how to send control information as a package and Madonna clearly has established that there can be more than one control information in a packet. More over, the specification on page 17, lines 25-31 and the Applicant's drawing Figure 1 clearly show that the D channel is made up of the signaling and data-format specific information.

Conclusion

21. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

22. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following US Patents are cited to show the state of the art with respect to multiplexing user data into structure blocks in ATM cells:

US Patent (6, 226, 294) to Caves

US Patent (6, 480, 494) to Hawley

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Habte Mered whose telephone number is 571 272 6046. The examiner can normally be reached on Monday to Friday 9:30AM to 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on 571 272 3088. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HM
03-19-2006

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